

Table of comparative maximum and minimum temperatures for August.

State or Territory.	Station.	For 1885.		Since establishment of station.			
		Max.	Min.	Max.	Year.	Min.	Year.
Alabama	Mobile	94.2	69.0	100.0	1874	63.0	1884
Do	Montgomery	95.4	64.9	103.0	1874	61.5	1879
Arizona	Prescott	96.7	50.3	99.0	1878	38.0	1876
Do	Yuma			115.0	1879	04.0	1879
Arkansas	Fort Smith	97.5	57.1	103.7	1884	58.4	1884
Do	Little Rock	98.7	64.3	102.0	1881	59.2	1884
California	San Francisco	81.0	52.0	89.0	1879	50.0	1884
Do	Red Bluff	107.5	58.5	110.5	1878	52.0	1881
Colorado	Denver	92.8	46.4	105.0	1878	44.0	1876
Do	Pike's Peak	52.2	26.0	62.0	1878	15.0	1882
Connecticut	New Haven	86.5	45.1	90.0	1873, 1876, 1881, 1884	45.7	1884
Do	New London	85.0	48.8	90.0	1873	47.5	1884
Dakota	Fort Buford	90.5	39.6	107.0	1882	36.0	1883
Do	Yankton	88.6	46.2	103.0	1874	45.0	1875
Delaware	Del. Breakwater			93.0	1881	60.0	1881
Do	Cape Henlopen	98.1	53.5				
Dist. of Columbia	Washington City	94.2	50.8	101.0	1881	50.0	1874
Florida	Jacksonville	94.1	70.2	100.0	1874	66.0	1874, 1875
Do	Key West	94.0	75.1	95.4	1881	72.0	1882, 1884
Georgia	Augusta	99.1	63.7	105.0	1878	61.0	1874
Do	Savannah	94.0	69.0	100.0	1878	63.0	1879
Idaho	Boise City	95.8	49.5	103.0	1879	39.0	1881
Do	Lewiston	105.2	51.5	106.6	1882	45.0	1882
Illinois	Chicago	94.8	54.5	103.0	1881	57.0	1880, 1884
Do	Chicago			98.0	1874	47.0	1872
Indiana	Indianapolis	95.1	47.7	101.0	1881	48.0	1876
Indian Territory	Fort Sill	103.5	56.0	105.0	1881	53.0	1880
Do	Fort Supply	97.5	54.0				
Iowa	Dubuque	86.4	46.1	97.3	1881	41.0	1875
Do	Keokuk	97.9	49.1	102.0	1873	47.0	1875
Kansas	Leavenworth	97.5	52.0	107.0	1871	50.0	1884
Do	Dodge City	95.5	52.4	101.6	1881	50.0	1880
Kentucky	Louisville	96.7	52.4	104.6	1881	50.0	1880
Louisiana	New Orleans	93.7	69.6	96.5	1877	65.5	1881
Do	Shreveport	100.7	61.8	105.0	1881	58.0	1880
Maine	Eastport	75.2	45.5	88.0	1880	45.0	1880
Do	Portland	84.6	47.5	95.0	1876	48.0	1874
Maryland	Baltimore	93.5	53.4	98.0	1881	52.0	1875
Massachusetts	Boston	88.8	47.2	96.3	1881	47.0	1880
Do	Springfield			93.0	1879	45.0	1880
Michigan	Marquette	83.1	42.1	96.0	1879	34.7	1883
Do	Detroit	80.0	48.4	98.8	1881	45.0	1875
Minnesota	Duluth	81.3	43.8	93.0	1881	45.0	1876
Do	Saint Paul	84.2	49.1	98.0	1880	43.0	1875
Mississippi	Vicksburg	97.2	61.8	106.4	1878	62.0	1879
Missouri	Saint Louis	95.0	53.5	106.4	1881	54.0	1884
Montana	Fort Benton	104.9	40.9	108.0	1881	34.0	1881
Do	Helena	92.7	38.3	95.0	1880	34.0	1880
Nebraska	North Platte	89.1	51.2	103.0	1878	42.0	1876
Do	Omaha	90.8	50.4	105.0	1874	49.0	1877
Nevada	Winnemucca	94.1	44.3	102.5	1882	32.0	1880
New Hampshire	Mount Washington	61.8	23.7	74.0	1881	53.0	1879
New Jersey	Atlantic City	89.3	48.8	91.8	1881	53.0	1879
Do	Sandy Hook	90.4	54.0	96.2	1881	55.0	1874
New Mexico	Santa Fé	88.0	49.0	97.0	1878	46.0	1882
New York	Buffalo	82.7	49.1	90.8	1874	44.0	1880
Do	New York City	89.0	51.0	96.0	1881	53.0	1874
North Carolina	Charlotte	93.5	55.8	100.5	1874	56.0	1879
Do	Wilmington	93.5	60.0	99.0	1878	56.0	1874
Ohio	Cincinnati	94.0	50.9	101.0	1881	55.0	1870
Do	Cleveland	86.5	45.6	98.7	1881	45.6	1876
Oregon	Portland	94.5	47.5	94.2	1884	43.0	1882
Do	Roseburg	91.6	40.1	97.2	1884	40.5	1872
Pennsylvania	Philadelphia	90.8	51.1	99.0	1881	53.0	1876
Do	Pittsburg	94.6	47.4	99.8	1881	49.0	1884
Rhode Island	Block Island	81.9	52.9	82.0	1882	54.5	1880
Do	Newport			87.0	1876, 1879	52.0	1880
South Carolina	Charleston	93.2	67.5	97.5	1881	62.0	1879
Tennessee	Knoxville	92.8	56.2	100.0	1881	50.0	1879
Do	Nashville	96.1	56.5	104.0	1874	54.7	1883
Texas	Galveston	95.0	72.8	98.5	1874	70.0	1877, '80, '82
Do	Fort Davis	97.0	55.8	100.0	1884	47.0	1880
Utah	Salt Lake City	100.3	51.0	101.0	1875	44.0	1880
Vermont	Burlington			97.0	1876	40.0	1880
Virginia	Lynchburg	94.3	51.4	100.0	1881	50.0	1874
Do	Norfolk	94.3	60.4	99.0	1881	58.0	1874
Washington Ter.	Dayton	108.7	45.0	101.8	1884	36.0	1883
Do	Olympia	52.2	44.2	92.0	1884	41.0	1880, 1882
West Virginia	Morgantown			92.2	1881	46.0	1874
Wisconsin	La Crosse	83.5	43.8	96.0	1874, 1881	44.0	1875
Do	Milwaukee	85.5	46.3	98.0	1874	42.0	1875
Wyoming	Cheyenne	86.6	40.5	96.1	1882	34.0	1876

Dakota.—Pembina, 24th; Vermillion, 31st.

Illinois.—Windsor, 14th, 26th; Swanwick, 26th; Bloomington, 27th.

Indiana.—Logansport and Spiceland, 15th; Guilford, 27th, 28th.

Iowa.—Dubuque, Cresco, Independence, Manchester and Maynard, 26th.

Maine.—Bangor, light frosts were reported at points along the river north of station on the 26th and 27th; Buckfield, 26th; Gardiner, 26th, 28th; Cornish, 27th, 28th.

Massachusetts.—Worcester, 26th, 27th; Rowe and Amherst, 27th; Heath, 27th, 28th; Taunton, 29th.

Michigan.—Traverse City, 14th; Buchanan, 14th, 26th; Grand Haven, East Tawas and Mottville, 15th; Manistique, 15th, 25th, 26th; Alpena, 24th; Escanaba, 25th; Thornville, 29th.

Minnesota.—Rochester and Northfield, 26th; Moorhead, 25th, 31st. The Signal Service observer at Saint Vincent reports that the first killing frost of the season occurred on the 24th, and that it is estimated that one-half of the wheat crop was ruined; a light frost occurred on the 31st.

New Hampshire.—Mount Washington, 8th, 16th, 20th, 25th to 30th.

New York.—Humphrey, 17th; Le Roy, 25th, 26th; Factoryville and Ithaca, 26th; Cooperstown, 27th, 28th.

Ohio.—Wauseon, 16th, 27th; Yellow Springs, 26th, 27th, 28th; Garrettsville, 28th.

Pennsylvania.—Pittsburg, light frost is reported to have occurred in the suburbs on the 27th, and at various places in the western part of the state on the morning of the 28th; Troy, 16th, 25th; Wellsborough and Grampian Hills, 27th; Chambersburg and South Bethlehem, 27th, 28th; Drifton and Dyberry, 28th.

Rhode Island.—Narragansett Pier, 28th.

Vermont.—Newport and Brattleborough, 8th; Strafford and Woodstock, 26th, 27th, 28th; Charlotte and Post Mills, 27th, 28th.

Virginia.—Snowville, 26th, the first frost known to have occurred in August for the last twelve years.

Wisconsin.—Wausau, 25th, 26th; La Crosse, Embarras and Neillsville, 26th. The cautionary signal displayman at Green Bay, reports that about one-third of the cranberry crop in the vicinity of Peshtigo, Marinette county, was destroyed by frosts on the 25th and 26th.

Wyoming.—Fort Bridger, 29th.

PRECIPITATION.

[Expressed in inches and hundredths.]

The distribution of rainfall over the United States and Canada for August, 1885, as determined from reports from more than eight hundred stations, is exhibited on chart iii.

In the following table are shown, for the several geographical districts, the normal August precipitation for a series of years, the average for August, 1885, and the excess or deficiency as compared with the normal:

Average rainfall for August, 1885.

Districts.	Average for August, Signal-Service ob- servations.		Comparison of August, 1885, with the av- erage for sev- eral years.
	For sev- eral years.	For 1885.	
	<i>Inches.</i>	<i>Inches</i>	<i>Inches.</i>
New England.....	3.42	6.41	+2.47
Middle Atlantic States.....	4.91	4.88	-0.03
South Atlantic States.....	6.30	7.67	+1.37
Florida Peninsula.....	7.67	6.74	-0.93
Eastern Gulf States.....	5.44	5.43	-0.01
Western Gulf States.....	3.92	1.82	-2.10
Rio Grande Valley.....	4.66	1.52	-3.14
Tennessee.....	3.77	2.71	-1.06
Ohio Valley.....	3.37	4.61	+1.24
Lower lake region.....	3.06	5.10	+2.04
Upper lake region.....	3.11	5.22	+2.11
Extreme northwest.....	3.13	1.61	-1.52
Upper Mississippi Valley.....	3.21	5.48	+2.27
Missouri Valley.....	3.02	6.04	+3.02
Northern slope.....	1.38	1.85	+0.47
Middle slope.....	2.58	4.17	+1.59
Southern slope.....	3.87	3.66	-0.21
Southern plateau.....	2.98	1.69	-1.29
Middle plateau.....	0.47	0.47	0.00
Northern plateau.....	0.29	0.19	-0.10
North Pacific coast region.....	0.69	trace.	-0.69
Middle Pacific coast region.....	0.04	0.20	+0.16
South Pacific coast region.....	0.10	0.06	-0.04

With the exception of the extreme northwest, the precipitation for August, 1885, was unusually large over the central and northern portions of the country east of the one hundred and fifth meridian; it was also very heavy along the coasts of South Carolina and Georgia. At Charleston, South Carolina,

the monthly precipitation, 19.18, was nearly three times the average for August at that station, and exceeded by more than four inches the largest monthly precipitation that has occurred since the Signal Office was established in 1871, the following being some of the largest recorded during the fourteen years of observations: August, 1871, 14.97; July, 1874, 13.74; June, 1876, 14.98; October, 1876, 14.32; April, 1877, 15.00. In the upper portions of the Missouri, Mississippi, and Ohio valleys, in the lake region, and New England, a very large excess over the average August precipitation also occurred. At Chicago, Illinois, the precipitation, 11.30, was more than four times as great as the August average for the last fourteen years, and was the largest recorded in any month during the period mentioned, the next largest being 7.36, for October, 1883. At Albany and Buffalo, New York; Erie, Pennsylvania; Baltimore, Maryland; Boston, Massachusetts, and on the summit of Mount Washington, New Hampshire, the precipitation exceeded the average by amounts ranging from three to more than seven inches.

Over an area extending from the Atlantic coast, between Cape May, New Jersey, and Hatteras, North Carolina, westward to the Indian Territory, and also in the southern districts from the lower Mississippi River to the Pacific coast the precipitation was below the average. In the Rio Grande Valley, west Gulf states, southern plateau, and in Tennessee the deficiencies ranged from one to three inches.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The following table shows, for certain stations as reported by voluntary observers, the average precipitation for the month of August for a series of years, the precipitation for August, 1885, and the departures from the average:

Station.	County.	Average precipitation for August.	Number of years.	Precipitation for August, 1885.	Departure.
		Inches.		Inches.	Inches.
<i>Arkansas.</i>					
Lead Hill.....	Boone.....	5.33	3	4.14	-1.19
<i>Connecticut.</i>					
Hartford.....	Hartford.....	4.34	13	8.84	+4.50
<i>Dakota.</i>					
Webster.....	Day.....	2.96	3	1.41	-1.55
<i>Illinois.</i>					
Anna.....	Union.....	4.61	10	4.13	-0.48
Collinsville.....	Madison.....	4.05		2.93	-1.12
Mattoon.....	Coles.....	2.83	5	7.80	+4.97
Riley.....	McHenry.....	3.18	24	6.80	+3.62
Swanwick.....	Perry.....	2.93	5	3.19	+0.26
Sycamore.....	De Kalb.....	2.13	4	9.90	+7.77
<i>Indiana.</i>					
Lafayette.....	Tippecanoe.....	2.57	6	4.93	+2.36
Logansport.....	Cass.....	3.32	20	2.72	-0.60
Vevay.....	Switzerland.....	3.14	21	3.81	+0.68
<i>Kansas.</i>					
Independence.....	Montgomery.....	2.91	13	7.46	+4.55
Manhattan.....	Riley.....	3.24	25	0.89	-2.35
Wellington.....	Sumner.....	2.28	7	0.61	-1.67
Yates Centre.....	Woodson.....	1.93	5	2.28	+0.35
<i>Maine.</i>					
Gardiner.....	Kennebec.....	3.75	47	3.21	-0.54
<i>Maryland.</i>					
Fallston.....	Harford.....	4.80	14	10.75	+5.95
<i>Massachusetts.</i>					
Somerset.....	Bristol.....	4.34		4.18	-0.16
Worcester.....	Worcester.....	5.40	43	6.52	+1.12
<i>Nevada.</i>					
Carson City.....	Ormsby.....	0.14		0.10	-0.04
<i>New Hampshire.</i>					
Antrim.....	Hillsborough.....	2.49	12	6.00	+3.51
<i>New Jersey.</i>					
South Orange.....	Essex.....	5.39	15	7.55	+2.16
<i>New York.</i>					
Ithaca.....	Tompkins.....	2.64		8.14	+5.50
North Volney.....	Oswego.....	2.40	14	2.20	-0.20
Palermo.....	Oswego.....	2.47	32	2.98	+0.51
<i>North Carolina.</i>					
Baleigh.....	Wake.....	5.20	15	6.40	+1.20
<i>Ohio.</i>					
Wauseon.....	Fulton.....	2.79	13	4.36	+1.57
<i>Pennsylvania.</i>					
Dyberry.....	Wayne.....	3.43	14	8.77	+5.34
<i>Texas.</i>					
New Ulm.....	Austin.....	3.02	14	0.09	-2.91
<i>Vermont.</i>					
Woodstock.....	Windsor.....	2.84	17	8.48	+5.64
<i>Virginia.</i>					
Wytheville.....	Wythe.....	3.70	21	3.70	0.00
<i>West Virginia.</i>					
Helvetia.....	Randolph.....	4.40	9	3.14	-1.26
<i>Wisconsin.</i>					
Beloit.....	Rock.....	3.90	36	9.23	+5.33

The following notes on the precipitation for the summer months of 1885 are also reported by voluntary observers:

Riley, McHenry county, Illinois: the precipitation for the summer of 1885 is 14.67, or 3.14 in excess of the summer average for the last twenty-four years; in but four years of that period has the precipitation been greater, viz., in 1862, 1865, 1866, and 1868.

Yates Centre, Woodson county, Kansas: the precipitation for the summer of 1885 is 17.02, or 7.99 in excess of the summer average for the last five years.

South Orange, Essex county, New Jersey: the precipitation for the three months ending with August is 11.58, or 1.50 below the summer average for the last fifteen years.

North Volney, Oswego county, New York: the rainfall for the summer season of 1885 is 9.60, the average for the last thirteen years being 9.21. During that period the greatest summer precipitation, 14.30, occurred in 1874; the least, 6.10, occurred in 1876.

Cooperstown, Otsego county, New York: the month of August, 1885, was marked by excessive precipitation; more rain fell than in any August during the last thirty years. During that period monthly rainfalls exceeding seven inches occurred as follows: June, 1857, 7.80; July, 1861, 7.36; July, 1863, 7.92; May, 1867, 7.38; June, 1872, 7.31; August, 1885, 9.08.

Ithaca, Tompkins county, New York: the meteorological records of Cornell University show that the rainfall (8.14) for August, 1885, exceeded by 4.20 the largest August precipitation previously recorded there.

Menand Station (near Albany), New York: the rainfall for August was remarkably heavy; it exceeded the aggregate for the three preceding months by 0.88.

Wellsborough, Tioga county, Pennsylvania: the rainfall, 15.23, for August, 1885, is the heaviest recorded here since 1860; the largest amount previously recorded in any month being 12.32 for July, 1833. The aggregate precipitation for the period from January 1 to July 31, 1885, only exceeds that for August by 4.32.

Bainbridge Island, Washington Territory: the rainfall, 0.01, for August, 1885, is the least recorded during the last eight years.

Beloit, Rock county, Wisconsin: the rainfall, 9.23, for August, is the largest recorded in any corresponding month since 1851; in that year the amount was 9.85, and in 1850 it was 15.73.

HAIL.

Toledo, Ohio: at Manhattan, four miles northeast of station, considerable hail fell on the 1st; the width of the storm's path is reported to have been about one-half mile.

Rondout, Ulster county, New York: a severe hail storm occurred here on the 1st. The hail-stones were about the size of hickory nuts, and caused much damage, especially to crops.

Lancaster, Lancaster county, Pennsylvania: a severe hail storm occurred in the northern part of this county during the afternoon of the 1st; much damage was done to the tobacco crop.

Portsmouth, North Carolina, 4th: reports from New Berne state that a severe hail storm occurred at that place on the 1st.

Davenport, Iowa: at about 6 p. m. on the 3d a violent hail storm occurred to the northeast of this city, in Duck Creek Valley. All crops over an area about two miles wide by five miles long were completely destroyed. The storm caused damage estimated at \$50,000.

Neillsville, Clark county, Wisconsin: a destructive hail storm occurred between 3.20 and 4 p. m. on the 3d. The hail-stones were unusually large, some of them measuring several inches in diameter. The storm moved in a southeasterly direction.

Guttenberg, Clayton county, Iowa: hail-stones of remarkably large size fell south of this place on the 3d.

Fort Totten, Dakota: a heavy rain and hail storm prevailed from 4.30 to 4.45 p. m. on the 7th, the hail-stones measuring two inches in diameter.

Table of excessive and greatest monthly precipitation for August, 1885.

Station.	Specially heavy.		Largest monthly.	Station.	Specially heavy.		Largest monthly.
	Date.	Amt.			Date.	Amt.	
<i>Alabama.</i>				<i>Iowa—Con.</i>			
Mobile.....			6.07	Independence.....	23, 24	3.80	7.10
<i>Arkansas.</i>				Oskaloosa.....	22	3.00	7.09
Lead Hill.....	1	2.37		Do.....	23, 24	2.96	
Magnolia.....	2	2.30		Keokuk.....	1, 2	2.48	
Texarkana.....	2	2.17		Des Moines.....	23, 24	2.52	
<i>Colorado.</i>				Fort Madison.....	23, 24	2.50	
West Las Animas.....	24, 25	2.34		Logan.....	5, 6	2.00	
<i>Connecticut.</i>				<i>Kansas.</i>			
Hartford.....	3, 4	3.43	8.84	Wyandotte.....	11	5.10	7.86
Do.....	24, 25	2.58		Independence.....	4, 5	3.00	7.46
Hew Haven.....	3, 4	4.51	8.13	Do.....	10	2.53	
New London.....	24, 25	4.11	7.69	Leavenworth.....	11	3.50	
Voluntown.....	3	2.25	6.55	Topeka.....	11	2.54	
Do.....	24	2.50		W. Leavenworth.....	11	3.50	
Bethel.....	3, 4	3.20		Salina.....	3	2.05	
North Colebrook.....	3, 4	3.10		<i>Louisiana.</i>			
<i>Dakota.</i>				Luling.....	21, 22, 23	4.71	8.39
Yankton.....	5 to 8	3.84	6.21	Grand Coteau.....	26	3.12	7.57
Fort Randall.....	7	2.68		Lafayette.....			6.76
Fort Bennett.....	1	2.27		Point Pleasant.....	12	2.03	
<i>Dist. of Columbia.</i>				<i>Maine.</i>			
Distrib. Reservoir.....	3, 4	3.65	7.31	Buckfield.....	4	2.30	11.10
Washington City.....	3, 4	2.21	6.49	Do.....	13	5.75	
Receiv'g Reservoir.....	2, 3	2.95		Orono.....	4, 5	2.85	7.36
<i>Florida.</i>				Do.....	13	3.04	
Pensacola.....	2, 3	2.12	11.74	Cornish.....	4	2.15	6.08
Do.....	29, 30	6.81		Portland.....	4	2.11	
Merritt's Island.....	12, 13	3.43	10.28	<i>Maryland.</i>			
Do.....	15, 16	3.06		Fallston.....	3	5.96	10.75
Archer.....	29, 29	2.26	10.23	Do.....	7, 8	2.14	
Cedar Keys.....	12 to 15	5.82	10.09	Baltimore.....	3	3.35	7.78
Tallahassee.....	9	2.00	9.87	Do.....	7, 8	2.14	
Do.....	30	3.22		Fort McHenry.....	1, 2, 3	3.52	7.70
Live Oak.....	27	2.30	9.71	Woodstock.....	2, 3	2.47	6.43
Saint Augustine.....	15, 16	2.29	8.67	Do.....	7, 8	2.40	
Mayport.....	24	3.74	7.59	Great Falls.....	3, 4	3.10	6.03
Jacksonville.....	28, 29	3.57	7.56	<i>Massachusetts.</i>			
Fernandina.....	24	2.00	7.47	Amherst.....	1	2.15	8.31
Sanford.....			6.75	Do.....	3, 4	2.31	
<i>Georgia.</i>				Leicester.....	1 to 4	3.84	7.71
Savannah.....	26, 27	3.01	14.38	Boston.....	1	2.53	7.64
Do.....	30, 31	4.74		Amherst.....	1	2.03	7.62
Jesup.....	18	2.16	11.68	Do.....	3, 4	2.21	
Do.....	31	2.74		Rowe.....	30, 31	2.00	7.37
Way Cross.....	31	4.00	8.89	Westborough.....	1	2.38	7.19
Thomasville.....	31	2.99	8.19	Princeton.....	4	2.48	6.89
Allapaha.....	15	2.01	7.90	Williamstown.....	30, 31	3.03	6.66
Do.....	31	2.50		Worcester.....	1	1.94	6.52
West Point.....	10	2.25	7.76	Readville.....			6.28
Do.....	30, 31	2.10		New Bedford.....	24, 25, 26	3.09	
Milledgeville.....	1, 2, 3	2.76	7.70	Fall River.....	24, 25, 26	2.10	
Do.....	20	3.06		<i>Michigan.</i>			
Athens.....	30	3.42	7.05	Kalamazoo.....	23, 24	2.56	8.94
Newnan.....	30, 31	3.85	6.95	Alpena.....	3	2.26	7.18
Atlanta.....	29, 30	5.14	6.92	Traverse City.....			6.95
Millen.....	29	2.03	6.87	Lansing.....	2	2.25	6.75
Columbus.....	10, 11	2.59	6.64	Do.....	23, 24	1.97	
Do.....	31	2.00		<i>Minnesota.</i>			
Griffin.....	30, 31	4.38		Northfield.....	11	2.70	
Cartersville.....	30	2.45		<i>Mississippi.</i>			
Washington.....	30	2.35		Natchez.....	2, 3	2.15	8.85
Camak.....	30, 31	2.20		Do.....	17	2.58	
<i>Illinois.</i>				<i>Missouri.</i>			
Chicago.....	2, 3	6.36	11.28	Independence.....	17	7.61	9.36
Do.....	23, 24	3.92		Pierce City.....	12	2.20	7.20
Windeor.....	2	2.50	11.02	Do.....	21, 22	2.50	
Do.....	21, 22	3.37		Do.....	24, 25	2.40	
Do.....	25	2.36		Lamar.....	24, 25	2.26	
Sycamore.....	2	2.00	9.90	Greenfield.....			7.00
Do.....	8, 9	2.00		Miami.....			6.43
Rockford.....	23, 24	4.13	9.18	<i>Nebraska.</i>			
Mattoon.....	25	2.00	7.80	Stuckham.....			7.75
Wilton Centre.....	2	5.24	7.79	Omaha.....	5, 6	2.06	
Sandwich.....	1, 2	2.60	6.99	<i>New Hampshire.</i>			
Riley.....	23, 24	2.93	6.80	Do.....	3, 4	4.77	14.26
Charleston.....	21, 22	2.23	6.47	Do.....	13, 14	3.72	
South Evanston.....	23, 24	3.12		Woodstock.....	3, 4	2.50	12.92
Anna.....	34, 25	2.07		Do.....	11, 12, 13	7.18	
Swanwick.....	5, 6	2.01		Bristol.....	14	2.25	8.58
Springfield.....	2	2.10		Lake Village.....	1	3.25	7.97
Do.....	24, 25	2.09		Wolfborough.....	4	2.83	7.68
<i>Indiana.</i>				Wier's Bridge.....	1	3.22	7.42
Columbus.....	6	3.80	7.86	Ashland.....			6.51
Sunman.....	6, 7	2.34	7.43	Antrim.....	3, 4	2.00	6.00
Greencastle.....	21, 22	2.04	7.24	<i>New Jersey.</i>			
Indianapolis.....	24, 25	2.44		Salem.....	3	3.80	10.09
Richmond.....	21	2.11		South Orange.....	2, 3	4.60	7.55
La Grange.....	1, 2	2.85		Phillipsburg.....	3	4.03	7.35
Lacopia.....	1	2.00		Dover.....	3, 4	2.85	7.00
<i>Indian Territory.</i>				Beverly.....	2, 3	3.66	6.83
Fort Sill.....	13	2.90		Paterson.....	3	3.37	6.48
Do.....	26, 27	2.53		Barnegat City.....	23	2.52	6.14
<i>Iowa.</i>				Princeton.....	2, 3	2.39	
Davenport.....	1, 2	4.78	12.68	<i>New York.</i>			
Do.....	23, 24	6.33		Buffalo.....	3, 4, 5	3.69	10.63
Cedar Rapids.....	1, 2	3.08	9.19	Do.....	21, 22	2.60	
Do.....	22, 23, 24	4.30		Humphrey.....	3	2.03	10.11
Monticello.....	22, 23, 24	3.80	8.54	Do.....	23, 24	3.60	
Dubuque.....	23, 24	4.45	8.02	Cooperstown.....	21, 22	2.10	9.08
Indianola.....	1, 2	2.38	7.98	White Plains.....	3	3.10	8.30
Do.....	22, 23, 24	4.22		Do.....	23, 24	3.10	
Manchester.....	22, 23, 24	3.53	7.71	Menand Station.....	21, 22	2.33	8.91
West Union.....	1, 2	7.94	7.58	Ithaca.....			8.74
Muscantine.....	22, 23, 24	6.35	7.38	Mountainville.....	3, 4	3.80	7.86

Table of excessive and greatest monthly precipitation for August, 1885—Cont.

Station.	Specially heavy.		Largest monthly.	Station.	Specially heavy.		Largest monthly.
	Date.	Amt.			Date.	Amt.	
<i>New York—Con.</i>				<i>Pennsylvania—Con.</i>			
New York City.....	2, 3	4.14	7.70	Fallsington.....	3	3.38	7.56
Albany.....			7.58	Drifton.....	3	2.30	7.44
West Point.....		2.60	7.50	Catawissa.....	1, 2, 3	2.07	7.30
Do.....	14	2.00		Philadelphia.....	2, 3	3.72	6.80
Setanket.....	3, 4	4.16	6.43	Pittsburg.....	2, 3	2.01	
Auburn.....			6.33	Altoona.....	3	2.58	
David's Island.....	3	2.40		Chambersburg.....	2, 3	2.50	
<i>North Carolina.</i>				<i>Rhode Island.</i>			
Fort Macon.....	25, 26	2.18	7.73	Narragansett P'r.....	24, 25	3.74	6.90
Do.....	29, 30	2.43	6.40	<i>South Carolina.</i>			
Raleigh.....	28, 29, 30	5.80		Charleston.....	16	2.05	19.18
Goldsbrough.....	30, 31	4.24		Do.....	25	4.29	
New Bern.....	30, 31	2.57		Do.....	29, 30, 31	7.58	
Hatteras.....	25, 26	2.00		Hardeeville.....	24, 25	4.12	17.01
<i>Ohio.</i>				Do.....	31	6.00	
Wellsborough.....	12, 13	4.98	15.25	Yemassee.....	14	2.05	14.72
Do.....	24, 25	5.55		Do.....	25	2.15	
Quaker City.....	23	4.08	9.86	Do.....	29	2.00	
McConnellsville.....	2, 3	2.60	9.62	Do.....	31	2.60	
Tiffin.....	1, 2	3.48	9.39	Jacksonburg.....	25	2.98	10.71
Wilmington.....	2, 3	2.72	9.30	Do.....	31	3.39	
Do.....	22, 23	2.22		Kingstree.....	3	3.24	10.19
Marietta.....	2	4.05	8.99	Do.....	25	2.40	
Logan.....	2	2.74	8.75	Branchville.....	1, 2	2.53	7.24
Waynesville.....	2	2.15	8.59	Do.....	25	2.03	
Springborough.....	21 to 25	4.03	8.22	Florence.....	2	3.10	7.22
North Lewisburg.....	23, 24	3.20	7.55	Do.....	25	3.28	
Weymouth.....	12, 13	3.23	7.52	Greenville.....			6.39
Washington C.H.....	2, 3	3.21	7.49	Saint George's.....			6.33
Do.....	25	2.96		Greenwood.....	30	3.59	
Garrettsville.....	2, 3	2.32	7.44	Cheneyville.....	1, 2	2.23	
Upper Sandusky.....	1, 2	2.00	7.05	Chester.....	30, 31	2.00	
Levering.....	24	2.15	6.99	Saint Matthew's.....	2	2.00	
New Alexandria.....			6.84	<i>Tennessee.</i>			
Clintonville.....	23, 24	2.04	6.75	Ashwood.....	12	2.80	
Lordstown.....	23, 24	2.05	6.71	<i>Texas.</i>			
Hiram.....	2	2.07	6.66	Huntsville.....	14	3.00	
Ellsworth.....			6.49	Sour Lake.....	11, 12	2.16	
Yellow Springs.....	24, 25	2.32	6.47	Weatherford.....	27	2.00	
Ruggles.....			6.35	Cuero.....	14	2.00	
Warren.....			6.35	<i>Utah.</i>			
Youngstown.....	23, 24	2.08	6.34	Frisco.....	22, 23	2.80	
Dayton.....	24, 25	2.31	6.23	<i>Vermont.</i>			
Clyde.....	9	2.10	6.22	Woodstock.....	13	3.04	8.48
Hudson.....			6.03	Stratford.....	12, 13	2.00	7.90
Pomeroy.....	24, 3	3.31	6.03	Brattleborough.....	3, 4	2.00	6.34
Westerville.....	24, 25	2.66		Lunenburg.....	13, 14	2.50	
Cluoinnati.....	6, 7	2.62		Dorset.....	13	2.03	
<i>Pennsylvania.</i>				<i>Virginia.</i>			
Mahanoy Plane.....	1, 2, 3	5.23	9.99	Bird's Nest.....	7, 8	6.45	7.05
West Chester.....	2, 3	6.56	9.51	Brunington.....	7, 8	2.70	
Blooming Grove.....	3	4.80	9.20	<i>West Virginia.</i>			
Do.....	24, 25	2.40		Wellborough.....			7.45
Germantown.....	1, 2, 3	6.39	8.80	<i>Wisconsin.</i>			
Dyberry.....	2, 3	3.60	8.77	Beloit.....	1, 2	2.04	9.23
South Bethlehem.....	3	4.10	8.64	Do.....	23, 24	2.72	
Quakerstown.....	2, 3	4.07	8.34	Milwaukee.....	6	2.09	7.39
Grampian Hills.....	2, 3	2.40	8.03	Madison.....			6.41
Erie.....	23, 24	2.90	7.97	Franklin.....	6	2.50	6.06
Easton.....	1, 2, 3	5.21	7.76				

Annapolis, Maryland: a severe hail storm visited sections of Anne Arundel county on the 19th. The storm was especially severe in the vicinity of Davidsonville, where much damage was done to the corn and tobacco crops.

Easton, Pennsylvania: a destructive hail storm occurred in this vicinity during the afternoon of the 19th. Great damage was done to the growing crops and fruit in the northern part of this (Northampton) county.

Danville, Montour county, Pennsylvania: a violent hail storm occurred here during the afternoon of the 21st, the hail-stones measuring one and one-half inches in diameter.

Catawissa, Columbia county, Pennsylvania: one of the most violent hail storms that has ever visited this vicinity occurred on the 21st, the largest of the hail-stones measuring more than one inch in diameter. The width of the storm's path was about one mile. The crops were seriously damaged.

Lock Haven, Clinton county, Pennsylvania: a destructive hail storm passed over the townships of Dunstable, Wayne, Pine Creek, and Woodward, in this county, during the afternoon of the 22d. The tobacco crop in its track was totally destroyed.

Rochester, New York: a severe hail storm occurred at Corning, Steuben county, between 8 and 9 p. m. on the 30th. Reports from Onondago county state that a destructive hail storm occurred in the northern part of that county on the above date, the unharvested tobacco crop being almost entirely ruined. During the early morning of the 31st a very severe hail storm passed over Batavia, Genesee county, the hail-stones covering the ground to a depth of three inches. Much damage was done to crops.

West Las Animas, Colorado: on the 24th heavy rain fell between 7.50 and 8.55 p. m., and from 8.10 to 8.40 p. m. the storm was accompanied by hail. In the surrounding country the alfalfa and millet crops and garden vegetables were beaten to the ground, and on the prairies many small animals and birds were killed. The rainfall and melted hail amounted to 1.92 inches, the greater part of which fell in thirty minutes. The wind reached a velocity of thirty-three miles per hour at West Las Animas. This storm is considered one of the most severe that has ever occurred in that vicinity.

Hail-storms, of which no particulars were reported, occurred in the various states and territories, as follows:

Arizona.—Fort Apache, 3d; Fort Verde, 5th.

Colorado.—Pueblo, 1st, 29th; Braddock, 6th, 27th; Pike's Peak, 10th, 11th, 15th, 23d.

Connecticut.—North Colebrook, 19th; Hartford, 24th.

Dakota.—Fort Sully, 1st, 6th; Forts Totten and Bennett, 7th; Bismarck, 9th.

Illinois.—Cairo, 2d; Chicago, 3d; Windsor, 7th.

Iowa.—Dubuque, 3d; West Union, 17th; Keokuk, 18th.

Kansas.—Westmoreland and Yates Centre, 3d; Maud and Sterling, 14th.

Massachusetts.—Worcester, 1st.

Minnesota.—Saint Vincent, 2d; Moorhead, 4th; Saint Paul and Fort Snelling, 16th.

Montana.—Forts Benton and Maginnis, 26th.

Nebraska.—Columbus, 5th; Crete, 23d.

New Jersey.—Beverly, 25th.

New Mexico.—Lava, 28th; Gallinas Springs, 30th, 31st.

New York.—Rochester, 14th; Palermo, 18th, North Volney, 19th; Buffalo, 21st; Humphrey, 27th; Ithaca, 30th.

Ohio.—Wauseon, 1st, 4th; Tiffin, 30th.

Pennsylvania.—Quakertown and Dyberry, 1st; Wells-borough, 4th, 13th; Drifton, 5th.

South Carolina.—Stateburg, 8th.

Tennessee.—Milan, 1st; Knoxville, 16th.

Utah.—Salt Lake City, 25th.

Virginia.—Fort Myer, 19th.

Wisconsin.—Beloit, 6th; La Crosse, 17th; Milwaukee, 17th, 21st.

Wyoming.—Fort Bridger, 5th, 8th; Fort Fred Steele, 28th.

SNOW.

Snow is reported to have fallen during the month at the following places:

Pike's Peak, Colorado, 12th, 17th, 18th, 20th, 25th, 27th, 28th. The observer also reports that at the close of the month traces of snow remained on the sides of the mountain.

Hartford, Connecticut: snow fell at this place on the 26th; this is the earliest fall of snow ever recorded in August.

Mount Washington, New Hampshire, 26th, 28th, 29th. Wilkesbarre, Pennsylvania: at Harvey's Lake, ten miles distant, snow fell at intervals all day on the 26th.

SLEET.

The occurrence of sleet during the month has been reported from but one station, viz., Pike's Peak, Colorado, on the following dates, 4th, 5th, 11th, 12th, 13th, 19th, 20th, 21st, 23d to 27th, 29th, 30th 31st.

PRECIPITATION FROM CLOUDLESS SKY.

Lead Hill, Arkansas, 10th: at about 11 p. m. a light sprinkle of rain fell; the sky was partly cloudy in north and northwest, but it was entirely clear over head, and the air calm.

COTTON REGION REPORTS.

The following table shows the means of the maximum and minimum temperatures, and the average rainfall for the several cotton districts, for the month of August, 1885, together with the averages for the three preceding years:

Temperature and rainfall data for the cotton districts, August, 1885.

Districts.	Rainfall.			Temperature.									Extremes for Aug., 1885.	
	Average for Aug. of three preceding years.	Average for Aug., 1885.	Departures.	Maximum.			Minimum.							
				Mean for Aug. of three pre- ceding years.	Mean for Aug., 1885.	Departures.	Mean for Aug. of three pre- ceding years.	Mean for Aug., 1885.	Departures.					
										Max.	Min.			
New Orleans...	4.34	3.58	- 0.76	91.0	91.1	0.0	70.6	72.6	+ 2.0	101	60			
Savannah.....	5.35	0.92	- 4.43	90.7	91.0	+ 0.3	70.7	72.5	+ 1.8	101	60			
Charleston.....	5.94	11.39	+ 5.45	89.0	89.5	+ 0.5	68.8	69.7	+ 0.9	99	58			
Atlanta.....	4.36	5.33	+ 0.97	87.6	88.7	+ 1.1	67.0	68.8	+ 1.8	98	58			
Wilmington.....	4.32	4.05	- 0.27	88.2	88.4	+ 0.2	67.3	67.3	0.0	100	51			
Memphis.....	3.15	1.10	- 2.05	87.9	90.7	+ 2.8	65.6	67.2	+ 1.6	103	45			
Galveston.....	2.65	1.34	- 1.31	94.0	94.2	+ 0.2	70.1	71.9	+ 1.8	105	48			
Vicksburg.....	3.53	1.91	- 1.62	90.7	91.0	+ 0.3	69.1	69.3	+ 0.2	59	47			
Montgomery.....	3.27	3.55	+ 0.28	89.0	90.9	+ 1.9	67.8	69.5	+ 1.7	104	56			
Augusta.....	3.64	4.31	+ 0.67	89.8	91.2	+ 1.4	67.5	69.3	+ 1.7	107	58			
Little Rock.....	2.77	1.49	- 1.28	90.1	92.6	+ 2.5	65.2	67.1	+ 1.9	104	45			
Mobile.....	2.99	2.85	- 0.14	92.0	92.6	+ 0.6	68.8	71.0	+ 2.2	106	49			

The rainfall, as compared with the average for the three preceding years, is excessive in the districts of Atlanta, Augusta, Charleston, Montgomery, and Savannah; it was deficient in the remaining districts. The most marked departures are +5.45 for the district of Charleston, and -2.05 for the district of Memphis.

The means of the maximum and minimum temperatures were normal, or slightly above, in all districts.

TEMPERATURE OF WATER.

The following table shows the highest and lowest temperatures of water observed at the several stations; the monthly ranges of water temperature; the average depth at which the observations were made; and the mean temperature of the air:

Temperature of water for August, 1885.

Station.	Temperature at bottom.		Range.	Average depth, feet and tenths.	Mean temperature of the air at station.
	Min.	Max.			
Atlantic City, New Jersey.....	81.6	73.4	8.2	5.0	73.1
Alpena, Michigan.....	73.6	58.1	15.5	12.9	59.1
Augusta, Georgia.....	83.5	74.4	9.1	6.1	79.2
Baltimore, Maryland.....	85.1	77.0	8.1	10.7	74.6
Block Island, Rhode Island.....	69.4	62.2	7.2	0.3	68.7
Boston, Massachusetts.....	70.9	59.7	11.2	20.4	67.4
Buffalo, New York.....	77.0	67.2	9.8	9.1	64.7
Canby, Fort, Washington Territory.....	67.9	59.1	8.8	15.1	57.8
Cedar Keys, Florida.....	88.7	80.1	8.6	8.8	82.0
Charleston, South Carolina.....	85.4	75.4	10.0	37.5	80.6
Chicago, Illinois.....	71.5	61.7	7.8	8.4	68.1
Chincoteague, Virginia.....	85.0	72.3	12.7	3.7	75.0
Cleveland, Ohio.....	75.3	67.1	8.2	14.0	65.8
Detroit, Michigan.....	76.0	63.7	12.3	24.6	66.7
Duluth, Minnesota.....	67.5	59.1	8.4	10.3	60.9
Escanaba, Michigan.....	54.5	48.1	6.4	16.4	60.1
Galveston, Texas.....	74.3	56.3	18.0	18.2	59.6
Grand Haven, Michigan.....	87.5	83.7	3.8	12.7	84.2
Indianola, Texas.....	74.8	64.1	10.7	19.0	60.8
Jacksonville, Florida.....	87.3	83.3	4.0	8.6	82.8
Key West, Florida.....	89.0	82.0	7.0	18.0	80.7
Mackinac City, Michigan.....	90.5	86.2	4.3	17.4	85.1
Macon, Fort, North Carolina.....	69.0	59.2	10.0	10.0	59.3
Milwaukee, Wisconsin.....	84.3	77.7	6.6	12.6	78.8
Mobile, Alabama.....	65.5	50.5	15.0	8.0	63.1
New Haven, Connecticut.....	87.5	83.0	4.5	16.1	79.0
New London, Connecticut.....	77.4	70.3	7.1	16.7	67.8
New York City.....	72.0	66.2	5.8	11.9	68.4
Norfolk, Virginia.....	77.8	72.1	5.7	15.7	70.8
Penascola, Florida.....	84.4	74.7	9.7	16.5	77.9
Portland, Maine.....	87.2	79.4	7.8	17.4	80.8
Portland, Oregon.....	66.1	56.6	9.5	10.7	64.1
Sandusky, Ohio.....	75.4	67.3	8.1	49.8	66.5
Sandy Hook, New Jersey.....	81.0	66.4	14.6	11.8	67.5
San Francisco, California.....	76.6	72.2	4.4	2.2	71.8
Savannah, Georgia.....	63.7	60.0	3.7	37.1	58.5
Smithville, North Carolina.....	86.0	79.2	6.8	10.3	81.1
Toledo, Ohio.....	87.1	74.8	12.3	10.9	79.5
Wilmington, North Carolina.....	81.1	67.4	13.7	13.7	66.9
Wilmington, North Carolina.....	87.3	73.0	14.3	13.9	79.7

* Record for 29 days.

† Record for 16 days.

‡ Record for 27 days.